UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,616	08/14/2001	Gerald D. Benjamin	019143.0334	1611

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EXAMINER
GEREZGIHER, YEMANE M

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/930,616	BENJAMIN ET AL.
		Examiner	Art Unit
		Yemane M. Gerezgiher	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 February 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>14 August 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The amendment received on 02/25/2005 has been entered. Claims 1-21

remain pending in this application.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and
> distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 1-5, 14, 15, 20 and 21 rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly

claim the subject matter which applicant regards as the invention.

In **claims 1, 3, 14, 15, 20 and 21**, the inventive entity recite,

"generating a list of service agent records by **applying one ore more**

arithmetic algorithms to the subset of skill entries..." in claim 1 claim Lines

13-14 and further significantly the same language is recited in claims 3, 14,

15, 20 and 21. It is not clear what the applicant encompass to cover by

making use of such a vague language "...**ore more arithmetic algorithms...**"

without any specific details of what the "arithmetic algorithms" are. There is no

indication of the language indicating whether the operation in performing the

intended use is by combining numbers, by addition, subtraction, multiplication

and/or division of attributes or any other mathematical computation.

Furthermore there is no specific mathematical rule, procedure, formula or

pseudocode in support of the claimed language ("algorithm"). Thus, it is

unclear what the inventive entity meant to cover by such a broad language.

For examination purpose, the examiner will broadly interpret the claimed

language to mean any one of the arithmetical computations disclosed above.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in

this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section
> 122(b), by another filed in the United States before the invention by the applicant for patent
> or (2) a patent granted on an application for patent by another filed in the United States
> before the invention by the applicant for patent, except that an international application
> filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application
> designated the United States and was published under Article 21(2) of such treaty in the
> English language.

5.   Claims 1-5, 14,15, 20 and 21 are rejected under 35 U.S.C. 102(e) as

being anticipated by **Edwards** (U.S. Patent Number 6,744,877) hereinafter

referred to as **Edwards**.

As per claims 1, 14 and 20: Edwards disclosed:

receiving a request to establish a communication session between a

client and one of a plurality of service agent stations; [Fig. 13A Step 1301, Col.

25 Lines 55-56 and Col. 30 Lines 17-18]. Further, since the teachings of

Edwards is performed using a computer network system, an interface operable

to communicate with a network, the interface further operable to receive a request to establish a communication session between a client and one of a plurality of service agent stations as recited in claim 20, was inherently disclosed by the teachings of <u>Edwards.</u>

generating a profile of the communication session in response to the request, [Col. 30 Lines 23-24] wherein the profile of the communication session comprises at least two attributes; [Col. 25 Lines 33-35 and Fig. 13A Steps 1303-1311]

comparing the profile of the communication session to a skills table, wherein the skills table includes a plurality of service agent records, each service agent record associating a service agent station with one or more skill entries; [Col. 25 Line 59 through Col. 26 Line 23, Col. 17 Lines 58 through Col. 18 Lines 8, Col. 30 Lines 27-36 and Col. 31 Lines 54-59].

identifying, based on the comparison of the profile and the skills table, a subset of the skill entries included in the skills table; [Col. 31 Lines 20-25 and Col. 31 Lines 60-64, <u>Edwards</u> disclosed comparing profile of the caller with skill table in determining optimal service agent according to the comparison. Thus, the selected agent record in accordance with the step of comparison is a subset of the skill entries in the skill table].

generating a list of service agent records by applying one or more arithmetic algorithms to the subset of skill entries; [Fig. 13A, Col. 31 Lines 53-64 and Col. 21 Lines 15-39, <u>Edwards</u> disclosed comparing numerical attributes

representing the communication session of a caller and the agent(s) in selecting

appropriate agent to the call received based on the skill level read from the skill

level records of the agents. Applying some kind of "arithmetic algorithms" In

making such process happen (comparing the numerical attributes), was

inherently disclosed by the teachings of Edwards] and

    selecting one of the service agent stations from the list of service agent

records. [Col. 32 Lines 55-61 and Col. 34 Lines 48-50].

As per claim 2, Edwards disclosed:

    establishing communication between the client and a voice response

unit; [Col. 14 Lines 47-55, Col. 7 Lines 41-46, Edwards disclosed a

communication session established between the client and the IVR (interactive

voice response)]

    receiving responses from the client; [Col. 17 Lines 58-62, Col. 7 Lines 41-

46]

    communicating the responses to a remotely located server;[Col. 17 Line

58 through Col. 18 Line 8, Edwards disclosed communicating the interaction of

the caller and the IVR to a central server ESB. Furthermore see Col. 9 Lines

41-43, Col. 17 Lines 19-22 and Col. 14 Lines 20-24] and

    generating the profile of the communication session utilizing the

responses. [Col. 18 Lines 2-8, Edwards disclosed creation of a call profile based

on information retained from the caller, IVR and customer database].

As per claims 3, 15 and 21,

applying one or more arithmetic algorithms to a plurality of attributes

included in the profile to generate a plurality of modified attributes; and

comparing the modified attributes to the skills table. [In Col. 31 Lines 53-64

and Col. 21 Lines 15-39, <u>Edwards</u> disclosed comparing numerical attributes

representing the communication session of a caller and the agent(s) in selecting

appropriate agent to the call received based on the skill level read from the skill

level records of the agents. Applying some kind of "arithmetic algorithms" In

making such process happen (comparing the numerical attributes), was

inherently disclosed by the teachings of <u>Edwards</u>].

As per claim 4, <u>Edwards</u> disclosed:

selecting the optimal service agent record from the list; [Col. 34 Lines 48-50],

assessing whether the service agent station associated with the selected service

agent record is available [Fig. 3 Steps 319 and Col. 17 Lines 49-57] and

electing the next optimal service agent record from the list if the prior service

agent station is unavailable. [Fig. 3 Step 321 and Col. 21 Line 67 through Col.

22 Line 3].

As per claim 5, <u>Edwards</u> disclosed:

establishing a communication session between the client and the

selected service agent station. [Col. 7 Lines 4-9 and Lines 26-35].

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

7.   Claims 6-13 and 16-19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Allen** (EP 1111890 A2) in view of **Judkins** et al (U.S. Patent

Number 6,603,854) hereinafter referred to as **Judkins.**

As per claim 6, 16 and 18 <u>Allen</u> disclosed a dynamic skill-based routing

in a telecommunication network by avoiding the use of a static skill-based

routing table, which required a network administrator to make changes

manually to the static table and providing a dynamic update to the skill tables

(See ABSTRACT, Column 3, Lines 9-49).

<u>Allen</u> disclosed receiving a an agent information from each switch in a

call center to a call center controller server (See Column 3, Lines 46-49)

updating the skill tables at the call center controller server and transmitting

the dynamically updated skill tables to each switch in plurality of call centers

allowing each call center to use updated skill table in routing incoming

requests/calls. See Column 3, Line 50 through Column 4, Line 37, Figures 1

and 2 and Column 5, Line 54 through Column 6, Line 2. Further, since the

teachings of <u>Allen</u> is performed using a computer network system, an interface

operable to communicate with the network, the interface further operable to

receive service agent information as recited in claim 18, was inherently

disclosed by the teachings of <u>Allen.</u>

    <u>Allen</u> substantial disclosed the invention as claimed. However, as

correctly argued by the inventive entity, <u>Allen</u> failed to teach the newly

amended functional limitation of "receiving service agent information from a

client, the service agent information pertaining to a service agent station

associated with the client".

    However, as evidenced by the teachings of <u>Judkins</u>, evaluating service

agents by querying the client/caller rating based on the caller's experience with

a particular agent during a communication interaction in order to update the

skill level of service agents was known at the time the invention was made.

Furthermore, <u>Judkins</u> taught querying the caller through the means of IVR

(interactive voice response) to rate the service agent right after the termination

of the communication session between the caller and the agent is completed

(claims 7 and 8). See Abstract. Thus, it is respectfully submitted that it would

have been obvious to one of ordinary skill in the art at the time the invention

was made to take the teachings of <u>Judkins</u> related to querying the caller in

rating skills of a service agent and have modified the teaching of <u>Allen</u> related

to dynamically updating skills table associated with the service agents in a skill

based routing of a communication session in order to efficiently update the

skill level of the agent(s).

As per claims 9, 17 and 19, the teachings of <u>Allen</u> disclosed updating a

skills table and communicating the updated skills table to the switches for skill

based routing of a communication session between a calling party and selected

service agent from the skill of agents in the skill table. Abstract, Column 3,

Line 50 through Column 4, Line 37, Figures 1 and 2 and Column 5, Line 54

through Column 6, Line 2. The functional limitation of claim 9 recite,

"associating the service agent information to the appropriate service agent

record in the skill table; and updating at least one service agent record

associated with the service agent information". <u>Allen</u> taught dynamically

updating the skill table associated with the service agent(s). Thus, since

updating the skill table is performed, selectively identifying and updating

agent's record in the updating process must have been inherently disclosed.

As per claim 10, <u>Allen</u> disclosed an administrator involvement

configuring routing preferences on each skill based routing information. <u>See</u>

<u>Column 3, Lines 9-19 and Lines 49-50</u>.

As per claims 11 and 12, <u>Allen</u> disclosed updating the skill tables at the

call center controller server and transmitting the dynamically updated skill

tables to each switch in plurality of call centers allowing each call center to use

updated skill table in routing incoming requests/calls. See Column 3, Line 50

through Column 4, Line 37, Figures 1 and 2 and Column 5, Line 54 through Column 6, Line 2. The language of the claim recites, "wherein communicating the skills table to a switch comprises communicating a subset of the skill table from the server to a switch" (claim 12). However, the teachings of Allen disclosed updating and communicating the skill table to the switches as described above. Having that said, communicating a skill table to a switch means communicating the skill table that has one or more subset skills, thus transmitting or communicating a subset of a skill table to a switch is within the scope of communicating the skills table as a whole that contains the cited subset of skill tables.

As per claim 13, Allen disclosed the switching calls in the call center comprising ACD (Automatic Call Distributor). See Column 1, Lines 3-34, 46-50 and Column 2, Lines 1-2 and 23-37.

Response to Arguments

8.   Applicant's arguments with respect to claims 1, 6, 14, 16, 18 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10.　The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

　　　a.　Dhir et al. (US 6553113 B1) entitled: "System and methods for call decisioning in a virtual call center integrating telephony with computers"

　　　b.　Bean et al. (US 6813636 B1) entitled: "Method and apparatus for routing a transaction within a network environment"

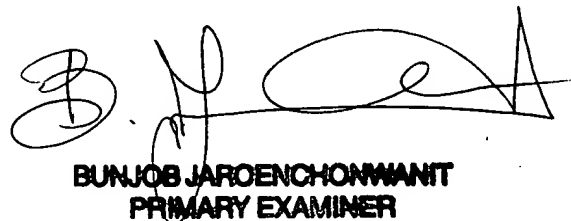　　　c.　Mengshoel et al. (US 6853721 B2) entitled: "Contact center autopilot architecture"

11.   Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Yemane M. Gerezgiher whose

telephone number is (571) 272-3927. The examiner can normally be reached

on 9:00 AM - 6:00 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, David Wiley can be reached at (571) 272-3923. The fax

phone number for the organization where this application or proceeding is

assigned is 703-872-9306.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

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PAIR. Status information for unpublished applications is available through

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http://pair-direct.uspto.gov. Should you have questions on access to the

Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

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